

Docket No.: 3673-0161P
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Kazushige SUGIMOTO

Application No.: 10/712,095

Confirmation No.: 8209

Filed: November 14, 2003

Art Unit: 1791

For: ATTITUDE ADJUSTING DEVICE FOR
SPHERE AND GOLF BALL
MANUFACTURING METHOD

Examiner: E. H. Lee

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Madam:

As required under § 41.37(a), this brief is filed more than two months after the Notice of Appeal filed in this case on September 11, 2008, and is in furtherance of said Notice of Appeal.

The fees required under § 41.20(b)(2), and any required petition for extension of time for filing this brief and fees therefor, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1205.2:

- I. Real Party In Interest
- II Related Appeals and Interferences
- III. Status of Claims
- IV. Status of Amendments

- V. Summary of Claimed Subject Matter
- VI. Grounds of Rejection to be Reviewed on Appeal
- VII. Argument
- VIII. Claims
- Appendix A Claims
- Appendix B Evidence
- Appendix C Related Proceedings

I. REAL PARTY IN INTEREST

The real party in interest for this appeal is:

Sumitomo Rubber Industries, Ltd.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in Application

There are 11 claims pending in application.

B. Current Status of Claims

1. Claims canceled: 9
2. Claims withdrawn from consideration but not canceled: 1-6
3. Claims pending: 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12
4. Claims allowed: none
5. Claims rejected: 7, 8, 10, 11, 12

C. Claims On Appeal

The claims on appeal are claims 7, 8, 10, 11, 12

IV. STATUS OF AMENDMENTS

Appellant did not file an Amendment After Final Rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The invention recited in claim 7

Claim 7 recites a golf ball manufacturing method. The paragraph beginning on page 1 of the specification under the heading "Field of the Invention," as well as the paragraph bridging pages 4-5, describes the forming of "a golf ball having a spew stuck onto a surface by a material put into a mold." A golf ball G with a spew B is illustrated in Fig. 1. As shown in Fig. 1 and described in the first paragraph beginning on page 5, the golf ball is rolled over a roller 3 (and 5). As shown in Figs. 2, 3, 4(a) and 4(b), the roller 3 (as well as the roller 5) includes a small diameter portion 11 that is concave along a surface of the golf ball and has a plurality of grooves 13 on a surface of the portion having the small diameter that extend along an axial direction of the roller. (In line 5 of claim 7, a word, such as "along" or "in," was inadvertently omitted between "extending" and "an." The language used in claim 7 has not been disputed by the Examiner and is not an issue in this appeal.) As best shown in Fig. 1 and described in the third paragraph beginning on page 5, the rolling of the golf ball is stopped by the abutment of the

spew B on stopper 7 (and stopper 9). As shown in Fig. 5 and described on page 9, lines 3-27, the golf ball is put on a machine for grinding with the attitude of the ball being kept. At a fourth station S4 in the machine, the spew B is cut away, and at a fifth station S5, the ball is abraded.

The invention recited in claim 8

The roller shape recited in claim 8 is described the first paragraph beginning on page 6.

The invention recited in claim 7

The roller shape recited in claim 10 is described the second paragraph beginning on page 6.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The only ground of rejection to be reviewed on appeal is the rejection of claims 7, 8 and 10-12 under 35 USC § 103(a) as being unpatentable over JP 59-081059 (JP '059) in view of US 3640028 (Richard) and US 3268634 (Glaser). (On page 2 of the Final Rejection, the Examiner mistakenly indicates that claims 7-9 and 10-12 are rejected.)

VII. ARGUMENT

THE REJECTION OF CLAIM 7

Disclosures in JP '059 and Richard

On page 2 of the Final Rejection, the Examiner characterizes JP '059 as teaching "all of the basic claimed process limitations," while acknowledging that JP '059 does not disclose "using a roller including a portion having a small diameter, which is concaved along a surface of the golf ball; and using a roller having a plurality of grooves on a surface of the portion having the small diameter." The Examiner adds that JP '059 does not teach "using a roller having the claimed shape including the axial grooves."

The Examiner characterizes Richard as teaching "a method of removing molding flashing from a surface of a golf ball by rotating a ball on a roller including a portion having a small diameter, which is concaved along a surface of the golf ball (fig 3)," adding that JP '059 and

Richard "are combinable because they are analogous with respect to rolling a golf ball on a roller."

As a remedy for the acknowledged deficiency of the JP '059 disclosure vis-à-vis the requirements of Appellant's claim 7, the Examiner proposes a modification of the JP '059 method whereby it would employ "the roller of Richard in the process of JP 59-81059 in order to better position and gyrate the golf ball of JP 59-81059."

The golf ball manufacturing method recited in claim 7 is an improvement over the apparatus and method disclosed in JP '059, which is cited and discussed on page 2 of Appellant's specification. In the disclosed and claimed method, advantageous adjustment of the attitude of a golf ball with a spew, or flash, is realized through the use of axially extending grooves within the portion of the roller having a small diameter. When a golf ball with flash is placed on a roller having a smooth surface, and without a concave portion, the rotational force of the roller is not reliably imparted to the ball. In the method disclosed and claimed in this application, the attributes of the roller enable the rotational force of the roller to be reliably imparted to the golf ball, causing rolling of the ball that allows the attitude of the ball to be adjusted with a high success rate. That is, as explained in the specification of this application, the use of a roller with a small diameter concave portion and axial grooves on a surface of the small diameter portion more reliably orients a golf ball for removal of the spew and thereby overcomes known disadvantages of the method disclosed in JP '059.

The method and apparatus disclosed by Richard effects removal of molding flash from golf balls using a grinding wheel 11 having axially spaced annular grooves 12 in which a golf ball is received while undergoing removal of the molding flash. As shown, for example, in Fig. 1, a feedwheel 17 confronts grinding wheel 11. A golf ball 28 situated in a groove of the grinding wheel 11 and supported on bar 27 undergoes rotation due to its engagement with the rotating confronting wheels 11 and 17. The golf ball also undergoes random movements between the rotating wheels 11 and 17 due to a spray from nozzle 53 that impinges on the ball. As the golf ball moves while engaging the grinding wheel, it is abraded over its entire surface, as described in column 2, lines 53-56 of Richard.

In the JP '059 method, the rolling of the golf ball is done in order to orient the flash for *subsequent* removal. In the Richard method, the grooved wheels are *grinding* wheels that impart random movements to the golf balls while the flash is abraded from the balls *by the wheels*. There is no suggestion in Richard of using the grooved wheels to effect any particular orientation of the golf balls, much less a specific orientation that positions the flash for removal. Rather, as noted above, in the Richard method, the movements imparted to the golf balls are random. Nevertheless, as proposed by the Examiner, the attributes of the Richard *grinding wheels* would be applied to the rollers used for performing the JP '059 method, even though the JP '059 method employs the rollers solely for orienting a golf ball. In view of the fundamental differences in the methods and apparatuses disclosed by JP '059 and Richard, Appellant submits that one of ordinary skill in the art would not have found it obvious to combine the teachings in these documents as proposed by the Examiner. The disclosures in the documents provide no basis for the proposed combination. The Examiner has not identified another basis for the proposed combination of teachings.

Disclosure in Glaser vis-à-vis disclosures in JP '059 and Richard

The Examiner characterizes Glaser as teaching "using a roller having a plurality of grooves on a surface of the portion having the small diameter (col 2, lns 24-33; fig 4)." The Examiner contends that "JP 59-81059 (modified) and Glaser are combinable because they are analogous with respect to rolling a golf ball on rollers" and that the teachings in Glaser would have made it obvious to modify the proposed JP '059-Richard method whereby the rollers would have grooves "in order to improve gripping of the ball by the rollers. On page 3 of the Final Rejection, the Examiner acknowledges that the grooves on the rollers disclosed in Glaser are not axial, but contends that "the specific groove pattern is a mere obvious matter of choice dependent on equipment availability." The Examiner also contends that the groove pattern is "of little patentable consequence to the claimed process since it is not a *manipulative* feature of the claimed process." The Examiner adds, "'rollers/guides having axial grooves are notoriously well-known in the molding art and orienting art" and concludes that "it would have been obvious ... to redesign the grooves of JP 59-81059 (modified) to have axial grooves in order to enhance rotation of the balls by increasing friction."

As explained above, it is Appellant's position that the disclosures in JP '059 and Richard are not obviously combinable as proposed by the Examiner. In the method taught by Glaser, a golf ball is clamped between three rollers 24, 32, 54 and subjected to a kneading operation for the purpose of rejuvenating the golf ball. As shown in Fig. 3, each of the rollers has a concave surface that accommodates the golf ball. Intersecting parallel grooves in the central region of the concave surfaces form a cross-hatch pattern 70 that forms raised, rounded portions 72 between the grooves. There are no disclosures in JP '059 and Richard relating to rejuvenating golf balls. There is no disclosure in Glaser relating to orienting of a golf ball. Appellant submits that, in view of fundamental differences between the rollers employed in the JP '059, Richard and Glaser methods, the combination of teachings proposed by the Examiner cannot be justified on the basis of any disclosures in these documents. The Examiner has not identified another basis for the proposed combination of teachings.

As noted above, the Examiner's contends that the groove pattern is "of little patentable consequence to the claimed process since it is not a *manipulative* feature of the claimed process." Appellant submits that the axially extending grooves contribute to the performance of the claimed method and that the *use* of a roller with axial grooves must be regarded as properly defining an attribute of the claimed method. Appellant also notes that the Examiner has inferentially recognized the efficacy of the axial grooves in the method by suggesting that it would have been obvious "to redesign the grooves of JP 59-81059 (modified) to have axial grooves *in order to enhance rotation of the balls by increasing friction*" (emphasis added).

Additional observations

On page 4 of the Final Rejection, the Examiner argues that the disclosures in JP '059 and Richard are combinable, because "... the wheel/roller of Richard is used to rotate the golf ball in order to grind off burrs. The fact that the concave portion of the wheel/roller reorients that ball against a grinding surface is a benefit that one of ordinary skill in the art would recognize." The Examiner concludes, "it would have been obvious ... to use a roller having a concave portion in order to facilitate reorientation of a rotating golf ball."

Appellant's answer to the foregoing statement by the Examiner is that any recognized benefits of the concave portion of the wheel/roller of Richard might be perceived as applicable to

grinding the surface of golf balls, but they would not be perceived as obviously applicable to orienting golf balls to a specific attitude.

In the paragraph bridging pages 4-5 of the Final Rejection, the Examiner states, "... the instant claims recite neither the claimed benefits of using axial grooves nor a positive use of the axial grooves. As the claims are written now, the axial grooves do not contribute a manipulative feature to the claimed process."

As Appellant observed above, the Examiner has recognized the efficacy of the axial grooves in the method by pointing out that the axial grooves would "enhance rotation of the balls by increasing friction."

THE REJECTION OF CLAIMS 8 AND 10

On page 3 of the Final Rejection, the Examiner contends that "the specific roller design is a mere obvious matter of choice, that it is "of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process" and that "the claimed design is well-known in the molding art."

The shapes of the roller defined in dependent claims 8 and 10 are especially efficacious for reliably imparting rotation to a golf ball, as explained in the specification of this application. There is no disclosure or suggestion in JP '059, Richard or Glaser of these shapes. In addition, because of the efficacy of the claimed roller shapes, these shapes must be regarded as properly reciting an attribute of the method.

Appellant challenges the Examiner to cite evidence showing that "the claimed design is well-known in the molding art."

CONCLUSION

In view of the foregoing observations and arguments, Appellant submits that no reasonable combination of the disclosures in JP '059, Richard and Glaser can properly serve as a basis for rejecting independent claim 7 or dependent claims 8 and 10-12 under 35 USC § 103(a). Accordingly, Appellant respectfully requests that the Examiner's rejection of these claims be reversed.

VIII. CLAIMS

A copy of the claims involved in the present appeal is attached hereto as Appendix A. As indicated above, the claims in Appendix A include the amendments filed by Appellant on January 15, 2008.

Dated: December 11, 2008

Respectfully submitted,

By 

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APPENDIX A

Claims Involved in the Appeal of Application Serial No. 10/712,095

7. A golf ball manufacturing method comprising the steps of:

forming a golf ball having a spew stuck onto a surface by a material put in a mold;
rolling the golf ball over a roller including a portion having a small diameter which is concave along a surface of the golf ball, the roller having a plurality of grooves on a surface of the portion having the small diameter, the grooves extending an axial direction of the roller;
stopping the rolling of the golf ball by abutment of the spew on a stopper;
putting the golf ball on a machine for grinding with the attitude of the ball being kept; and
removing the spew.

8. The method according to claim 7, wherein an axially sectional shape of a surface of the portion of the roller having a small diameter is a substantially circular arc and a radius R1 of the circular arc is 1.00 to 1.10 times as large as a radius R2 of the sphere.

10. The method according to claim 7, wherein an axially sectional shape of a surface of the portion of the roller having a small diameter is a circular arc and a radius R1 of the circular arc is 21.3 mm to 23.5 mm.

11. The method according to claim 7, wherein a rotating speed of the roller is 30 rpm to 130 rpm.

12. The method according to claim 7, wherein the stopper comprises two stopper parts opposed to each other with the golf ball interposed therebetween, positions of both of the stopper parts being set in such a manner that a difference ($L - D$) between a distance L between the stopper parts and a diameter D of the golf ball is 0.1 mm to 0.6 mm.

APPENDIX B

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the Examiner is being submitted.

APPENDIX C

No related proceedings are referenced in II. above, hence copies of decisions in related proceedings are not provided.